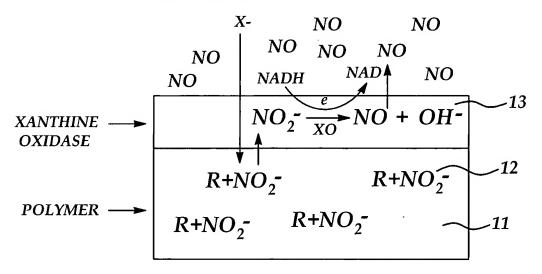


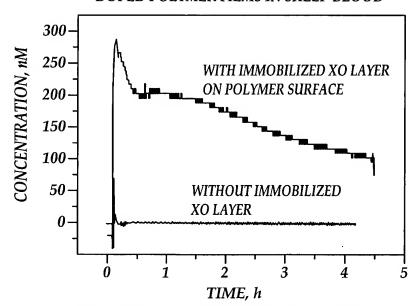
SCHEMATIC OF SURFACE NO GENERATION VIA NITRITE REDUCTASE ACTIVITY AND POLYMER LOADED WITH NITRITE SALT



R= TRIDODECYLMETHYLAMMONIUM

Figure 1

NO RELEASING PROFILE FROM NITRITE ION-PAIR DOPED POLYMER FILMS IN SHEEP BLOOD

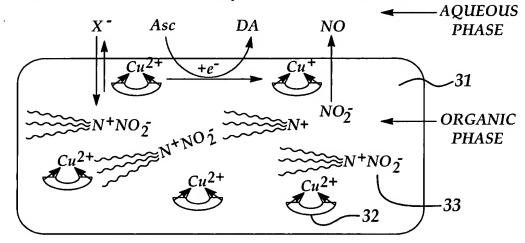


*DISTANCE BETWEEN POLYMER SURFACE AND SENSOR IS 10 µm

Figure 2

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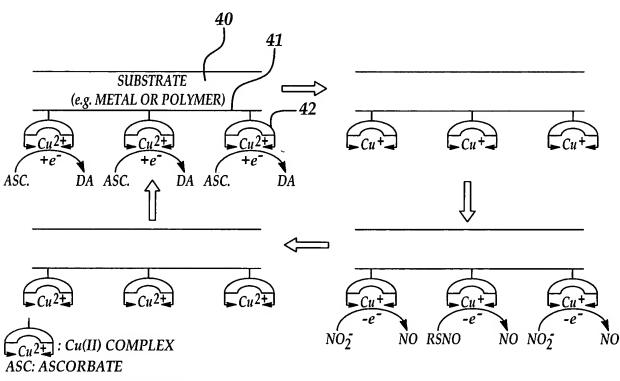
ELECTRON TRANSFER FROM AQUEOUS TO ORGANIC PHASE



ASC: ASCORBATE, DA: DEHYDROASCORBATE, X : ANION

: LIPOPHILIC COPPER COMPLEX

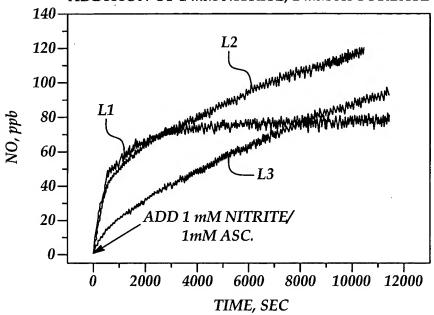
Figure 3



DA: DEHYDROASCORBATE **RSNO: NITROSOTHIOL**

Figure 4

NO GENERATION FROM PVC FILM UPON ADDITION OF 1 mM NITRITE, 1 mM ASCORBATE



FILM FORMULATION: 66.7 wt% PVC (132 mg) 33.3 wt% NPOE (66 mg) CuL_x Cl₂ (2 mg)(x=1,2,3) CUT 1 cm DISK FROM PARENT FILM

BACKGROUND SOLUTION: DEOXYGENATED PBS SOLUTION pH 7.4

<u>Figure 5</u>

Cu (II)-COMPLEXES

NO GENERATION FROM NITRITE ION PAIR/Cu(II)-COMPLEX(L2) DOPED PVC FILM UPON ADDITION OF 1 mM ASCORBATE

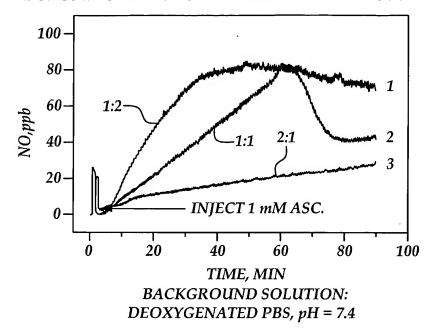


Figure 7

FILM COMPOSITIONS

- 1:66 mg PVC 132 mg NPOE 4 mg Cu(II)-COMPLEX 20 mg ION PAIR
- 2:100 mg PVC 100 mg NPOE 4 mg Cu(II)-COMPLEX 20 mg ION-PAIR
- 3:132 mg PVC 66 mg NPOE 4 mg Cu(II)-COMPLEX 20 mg ION-PAIR
- * EACH FILM CONTAINS 1.0 mg OF TDMA + NO₂-